

Element, Device and Procedure for highly efficient production of highly nuclear spin polarized ^3He gas

Abstract:

The invention concerns an element with at least one moveable component, in particular compressors and valves for a device in order to produce polarized gases, in particular ^3He -gas, featuring:

A housing,

a first space formed within said housing which is in conducting connection to the outside, a second space which is in conducting connection with a closed system comprising said polarized gas.

The invention is characterized :

In that at least one intermediate space is formed in between said first and said second space in order to prevent to a high degree the penetration of contaminants into said second space being connected to said closed system.